

# Philips Professional & Business Solutions



**EN** User Manual



**TYPE NR.    BDL3231  
                  BDL4231**

# **PHILIPS**

## SAFETY INSTRUCTIONS

### WARNINGS AND PRECAUTIONS

#### KNOW THESE SAFETY SYMBOLS



**CAUTION:** TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates high voltage is present inside. It is dangerous to make any kind of contact with any inside part of this product.



This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

**Note to CATV system installer:** This reminder is provided to call CATV system installer's attention to Article 820-40 of the National Electrical Code (Section 54 of Canadian Electrical Code, Part I), that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.

**Caution:** FCC/CSA regulations state that any unauthorized changes or modifications to this equipment may void the user's authority to operate it.

**Caution:** To prevent electric shock, match the wide blade of plug to the wide slot, and fully insert the plug.

**Attention:** Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la bome correspondante de la prise et pousser jusqu'au fond.

**Important:** One Federal Court has held that unauthorized recording of copyrighted TV programs is an infringement of U.S. copyright laws. Certain Canadian programs may also be copyrighted and any unauthorized recording in whole or in part may be in violation of these rights.

**TO PREVENT DAMAGE WHICH MAY RESULT IN FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.**

The Socket-outlet shall be installed near the apparatus and shall be easily accessible.

## REGULATORY INFORMATION

### CE DECLARATION OF CONFORMITY

Philips Consumer Electronics declare under our responsibility that the product is in conformity with the following standards

- EN60950-1:2001 (Safety requirement of Information Technology Equipment)
- EN55022:2006 (Radio Disturbance requirement of Information Technology Equipment)
- EN55024:1998+A1:2001+A2:2003 (Immunity requirement of Information Technology Equipment)
- EN6100-3-2:2000+A2:2005 (Limits for Harmonic Current Emission)
- EN6100-3-3:1995+A1:2001+A2:2005 (Limitation of Voltage Fluctuation and Flicker)

following provisions of directives applicable

- 73/23/EEC (Low Voltage Directive)
- 2004/108/EC (EMC Directive)
- 93/68/EEC (Amendment of EMC and Low Voltage Directive) and is produced by a manufacturing organization on ISO9000 level.

### FEDERAL COMMUNICATIONS COMMISSION (FCC) NOTICE (U.S. Only)



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Use only RF shielded cable that was supplied with the monitor when connecting this monitor to a computer device.

To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or excessive moisture.

THIS CLASS B DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

### FCC DECLARATION OF CONFORMITY

Trade Name: Philips

Responsible Party: Philips Consumer Electronics North America

P.O. Box 671539

Marietta, GA 30006-0026

1-888-PHILIPS (744-5477)



Declaration of Conformity for Products Marked with FCC Logo, United States Only This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



## **POLISH CENTER FOR TESTING AND CERTIFICATION NOTICE**

The equipment should draw power from a socket with an attached protection circuit (a three-prong socket). All equipment that works together (computer, monitor, printer, and so on) should have the same power supply source.

The phasing conductor of the room's electrical installation should have a reserve short-circuit protection device in the form of a fuse with a nominal value no larger than 16 amperes (A).

To completely switch off the equipment, the power supply cable must be removed from the power supply socket, which should be located near the equipment and easily accessible.

A protection mark "B" confirms that the equipment is in compliance with the protection usage requirements of standards PN-93/T-42107 and PN-89/E-06251.

### ***Wymagania Polskiego Centrum Badań i Certyfikacji***

Urządzenie powinno być zasilane z gniazda z przyłączonym obwodem ochronnym (gniazdo z kolkiem). Współpracujące ze sobą urządzenia (komputer, monitor, drukarka) powinny być zasilane z tego samego źródła.

Instalacja elektryczna pomieszczenia powinna zawierać w przewodzie fazowym rezerwową ochronę przed zwarciami, w postaci bezpiecznika o wartości znamionowej nie większej niż 16A (amperów).

W celu całkowitego wyłączenia urządzenia z sieci zasilania, należy wyjąć wtyczkę kabla zasilającego z gniazda, które powinno znajdować się w pobliżu urządzenia i być łatwo dostępne.

Znak bezpieczeństwa "B" potwierdza zgodność urządzenia z wymaganiami bezpieczeństwa użytkownika zawartymi w PN-93/T-42107 i PN-89/E-06251.

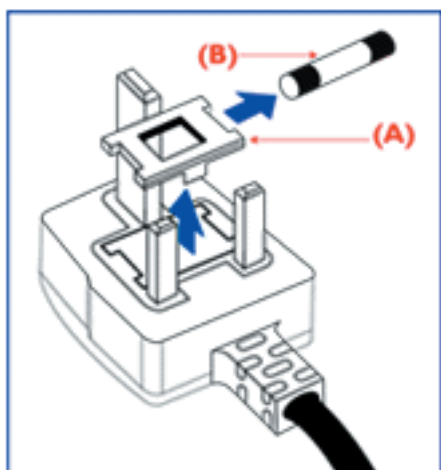
### ***Pozostałe instrukcje bezpieczeństwa***

- Nie należy używać wtyczek adapterowych lub usuwać kolka obwodu ochronnego z wtyczki. Jeżeli konieczne jest użycie przedłużacza to należy użyć przedłużacza 3-żyłowego z prawidłowo połączonym przewodem ochronnym.
- System komputerowy należy zabezpieczyć przed nagłymi, chwilowymi wzrostami lub spadkami napięcia, używając eliminatora przepięć, urządzenia dopasowującego lub bezzakłóceniewego źródła zasilania.
- Należy upewnić się, aby nic nie leżało na kablach systemu komputerowego, oraz aby kable nie były umieszczone w miejscu, gdzie można byłoby na nie nadeptywać lub potykać się o nie.
- Nie należy rozlewać napojów ani innych płynów na system komputerowy.
- Nie należy wpychać żadnych przedmiotów do otworów systemu komputerowego, gdyż może to spowodować pożar lub porażenie prądem, poprzez zwarcie elementów wewnętrznych.
- System komputerowy powinien znajdować się z dala od grzejników i źródeł ciepła. Ponadto, nie należy blokować otworów wentylacyjnych. Należy unikać kładzenia luźnych papierów pod komputer oraz umieszczania komputera w ciasnym miejscu bez możliwości cyrkulacji powietrza wokół niego.

## **ELECTRIC, MAGNETIC AND ELECTROMAGNETIC FIELDS ("EMF")**

1. Philips Royal Electronics manufactures and sells many products targeted at consumers, which, like any electronic apparatus, in general have the ability to emit and receive electromagnetic signals.
2. One of Philips' leading Business Principles is to take all necessary health and safety measures for our products, to comply with all applicable legal requirements and to stay well within the EMF standards applicable at the time of producing the products.
3. Philips is committed to develop, produce and market products that cause no adverse health effects.
4. Philips confirms that if its products are handled properly for their intended use, they are safe to use according to scientific evidence available today.
5. Philips plays an active role in the development of international EMF and safety standards, enabling Philips to anticipate further developments in standardisation for early integration in its products.

## INFORMATION FOR UK ONLY



### **WARNING - THIS APPLIANCE MUST BE EARTHED.**

#### **Important:**

This apparatus is supplied with an approved moulded 13A plug. To change a fuse in this type of plug proceed as follows:

1. Remove fuse cover and fuse.
2. Fit new fuse which should be a BS 1362 5A, A.S.T.A. or BSI approved type.
3. Refit the fuse cover.

If the fitted plug is not suitable for your socket outlets, it should be cut off and an appropriate 3-pin plug fitted in its place.

If the mains plug contains a fuse, this should have a value of 5A. If a plug without a fuse is used, the fuse at the distribution board should not be greater than 5A.

Note: The severed plug must be destroyed to avoid a possible shock hazard should it be inserted into a 13A socket elsewhere.


#### **How to connect a plug**

The wires in the mains lead are coloured in accordance with the following code:

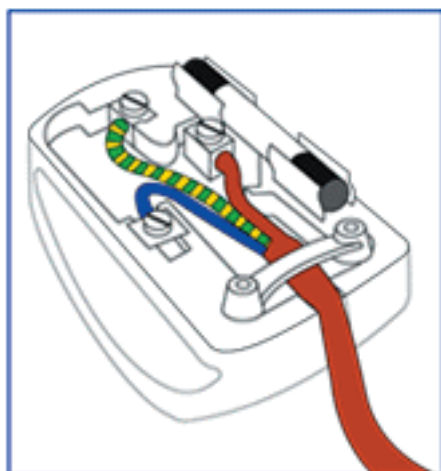
BLUE - "NEUTRAL" ("N")

BROWN - "LIVE" ("L")

GREEN & YELLOW - "EARTH" ("E")

1. The GREEN AND YELLOW wire must be connected to the terminal in the plug which is marked with the letter "E" or by the Earth symbol or  coloured GREEN or GREEN AND YELLOW.
2. The BLUE wire must be connected to the terminal which is marked with the letter "N" or coloured BLACK.
3. The BROWN wire must be connected to the terminal which marked with the letter "L" or coloured RED.

Before replacing the plug cover, make certain that the cord grip is clamped over the sheath of the lead - not simply over the three wires.



## **NORTH EUROPE (NORDIC COUNTRIES) INFORMATION**

Placering/Ventilation

### **VARNING:**

FÖRSÄKRA DIG OM ATT HUVUDBRYTARE OCH UTTAG ÄR LÄTÅTKOMLIGA, NÄR DU STÄLLER DIN UTRUSTNING PÅPLATS.

Placering/Ventilation

### **ADVARSEL:**

SØRG VED PLACERINGSFOR, AT NETLEDNINGENS STIK OG STIKKONTAKT ER NEMT TILGÆNGELIGE.

Paikka/Ilmankierto

### **VAROITUS:**

SIIJOITA LAITE SITEN, ETTÄ VERKKOJOHTO VOIDAAN TARVITTAESSA HELPOSTI IRROTTAA PISTORASIASTA.

Plassering/Ventilasjon

### **ADVARSEL:**

NÅR DETTE UTSTYRET PlassERES, MÅ DU PASSE PÅ AT KONTAKTENE FOR STØMTILFØRSEL ER LETTE Å NÅ.

## **END-OF-LIFE DISPOSAL**

Your new TV/Monitor contains materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and to minimize the amount to be disposed of.

Please find out about the local regulations on how to dispose of your old monitor from your local Philips dealer.

### **(For customers in Canada and U.S.A.)**

This product may contain lead and/or mercury. Dispose of in accordance to local-state and federal regulations.

For additional information on recycling contact [www.eia.org](http://www.eia.org) (Consumer Education Initiative)

## **WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT-WEEE**

### **Attention users in European Union private households**



This marking on the product or on its packaging illustrates that, under European Directive 2002/96/EG governing used electrical and electronic appliances, this product may not be disposed of with normal household waste. You are responsible for disposal of this equipment through a designated waste electrical and electronic equipment collection. To determine the locations for dropping off such waste electrical and electronic, contact your local government office, the waste disposal organization that serves your household or the store at which you purchased the product.

### **Attention users in United States:**

Like all LCD products, this set contains a lamp with Mercury. Please dispose of according to all Local, State and Federal Laws. For the disposal or recycling information, contact: [www.mygreenelectronics.com](http://www.mygreenelectronics.com) or [www.eiae.org](http://www.eiae.org)

## 中国电子信息产品污染控制标识要求 (中国RoHS法规标示要求)

## 产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
外壳	○	○	○	○	○	○
液晶面板	×	×	○	○	○	○
电路板组件	×	○	○	○	○	○
附件 (遥控器, 电源线, 连接线)	×	○	○	○	○	○
遥控器电池	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006标准规定的限量要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006标准规定的限量要求。



## 环保使用期限

此标识指期限(十年)，电子信息产品中含有的有毒有害物质或元素在正常使用的条件下不会发生外泄或突变，电子信息产品用户使用该电子信息产品不会对环境造成严重污染或对其人身、财产造成严重损害的期限。


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## I. IMPORTANT NOTES AND SAFETY INSTRUCTIONS

### I.1 SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings.  
Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.  
When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product may contain mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance: [www.eiae.org](http://www.eiae.org)
16. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged;
  - B. Objects have fallen, or liquid has been spilled into the appliance;
  - C. The appliance has been exposed to rain
  - D. The appliance does not appear to operate normally or exhibits a marked change in performance;
  - E. The appliance has been dropped, or the enclosure damaged.

17. **Tilt/Stability** - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinet design.
  - Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
  - Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.
18. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
19. **Power Lines** - An outdoor antenna should be located away from power lines.
20. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
21. **Battery Usage CAUTION** - To prevent battery leakage that may result in bodily injury, property damage, or damage to the unit:
  - Install all batteries correctly, with + and - aligned as marked on the unit.
  - Do not mix batteries (old and new or carbon and alkaline, etc.).
  - Remove batteries when the unit is not used for a long time.

22. For ventilation, leave at least 4” to 6” free all around the monitor. Do not place the monitor on a carpet.
23. The equipment shall not be exposed to dripping or splashing.
24. The equipment shall not be exposed to rain or moisture and objects filled with liquids, such as vases, shall be placed on the apparatus.
25. The apparatus must be connected to a mains socket outlet with a protected earthed connection.
26. The appliance coupler is used as the disconnect device of this apparatus, the disconnect device shall remain readily operable.
27. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

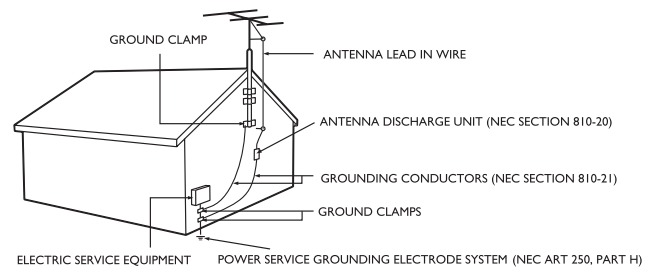
Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

See Figure below.

**Note to the CATV system installer:**

This reminder is provided to call the CATV system installer’s attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

**Example of Antenna Grounding as per NEC - National Electric Code**



## 1.2 WARNING AND CAUTION



### WARNING

- Unplug this product from the wall outlet immediately when it smokes or makes a strange smell.
- Do not block any ventilation openings. (This can result in a risk of fire or electric shock.)
- Do not overload wall outlets or extension cords (This can result in a risk of fire or electric shock.)
- Connect at the receptacle certainly not to be shaken (This can result in a risk of heat and a fire if it is connected to the wall outlet imperfectly.)
- Do not use the uncovered cables. (This can result in a risk of fire or electric shock.)
- During a storm conditions (especially when there is lightning) unplug this product from the wall outlet and don't touch the antenna. (This can result in a risk of fire or electric shock.)
- Do not expose this product to direct sunlight and extreme. (This can result in a risk of fire.)
- Keep children away from this product not to hang on or go up on it.
- Leave batteries for remote control away from your young children. (They may swallow them.)
- Place this product in a well-ventilated place. (This can result in a risk of fire.)
- People over 2 persons must move this product. (It can be the reason of the wound because of the weight of goods.)
- Never put objects of any kind into this product and place heavy things on it.
- Place an antenna away from a high-voltage cable.
- Please use a soft and dry cloth (not containing volatile matter) when you clean this product. (This can result in a risk of fire.)



### CAUTION

- Please use a soft and dry cloth when you clean this product. (This can result in a risk of electric shock)
- Should not be adhered to a power supply plug and receptacle. (This can result in a risk of fire)
- Do not use new batteries with old ones together. (This can result in a risk of electric shock)
- Do not place this product in the place to reach children's hands.
- Do not take out a power supply plug with the wet hand. (This can result in a risk of electric shock)
- Bend down the outdoor antenna cable to prevent the rain water flows and not to enter the room. (This can result in a risk of fire or electric shock)
- Maintain a suitable distance between you and a TV or monitor to protect your eye sight. (Your eye sight can get worse if you watch TV or monitor very nearly)
- Place remote control away from a humid or hot place because it is very minute device.
- If this product is not used for a long period of time, unplug the power cord. (This can result in a risk of fire or electric shock)
- Do not drop this product. Unplug the power cord and ask to Service Centre when it is broken.
- Do not cover this product with curtains or a tablecloth. (This can result in a risk of fire)
- Place the batteries rightly to the both sides (+,-) when you replace them. (The batteries can be explosive and you're wound)
- Do not place this product on the floor. (Children can press it down)
- Do not damage the power cord. (This can result in a risk of fire or electric shock)
- The LCD panel is very high technology product with about million thin film transistors, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green or red. Please note that this does affect the performance of your product.

### **I.3 CLEANING & CARE**

- To avoid possible shock hazard, please be sure that the monitor is unplugged from the electrical outlet before cleaning.
- When cleaning the monitor screen, take care not to scratch or damage the screen surface (avoid wearing jewelry or using anything abrasive).
- Wipe the front of the screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.
- Gently wipe the cabinet surfaces with a clean cloth or sponge dampened in a solution of cool clear water. Use a clean dry cloth to dry the wiped surfaces.
- Occasionally vacuum the ventilation holes or slots in the cabinet back.
- Never use thinners, insecticide sprays, or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet finish.
- Do not allow a still image to be displayed for an extended period of time as this can cause a permanent after-image to remain.

### **I.4 OTHER RELATED INFORMATION**

#### **I.4.1 INFORMATION FOR USERS IN THE U. S.**

For units set at 115 V :

Use a UL Listed Cord Set consisting of a minimum 18 AWG, Type SVT or SJT three conductor cord a maximum of 15-feet long and a parallel blade, grounding type attachment plug rated 15 A, 125 V.

For units set at 230 V:

Use a UL Listed Cord Set consisting of a minimum 18 AWG, Type SVT or SJT three conductor cord a maximum of 15-feet long and a tandem blade, grounding type attachment plug rated 15 A, 250 V.

#### **I.4.2 INFORMATION FOR USERS OUTSIDE THE U.S.**

For units set at 230 V:

Use a Cord Set consisting of a minimum 18 AWG cord and grounding type attachment plug rated 15 A, 250 V. The Cord Set should have the appropriate safety approvals for the country in which the equipment will be installed and / or be marked HAR.

## 2. UNPACKING AND INSTALLATION

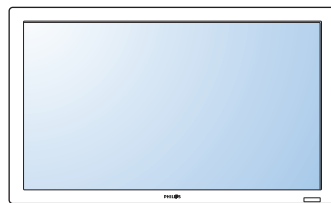
### 2.1 UNPACKING

- This product is packed in a carton, together with the standard accessories. Any other optional accessories will be packed separately.
- The weight of the product differs - depending on the type - from 12 to 22 kg. Due to the size and weight it is recommended to move it by 2 people.
- The protective glass and the glass substrate are installed on the front of the product. Since both glass can be broken and scraped easily the product has to be handled with care. Never place the product with the glass faced down unless it is protected with pads.
- After opening the carton ensure that the content is in good condition and complete.

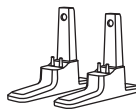
### 2.2 PACKAGE CONTENTS

Please verify that you received the following items with your package content:

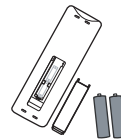
1. LCD
2. Base with screw
3. Remote control with batteries
4. EDFU
5. Logo guider
6. PHILIPS logo
7. Power cords
8. VGA cable
9. DVI-HDMI cable



LCD



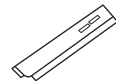
Base with screw



Remote control/  
batteries



EDFU



Logo guider



PHILIPS logo

Power cords



Europe



UK



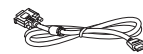
NAFTA



China



VGA cable



DVI-HDMI cable

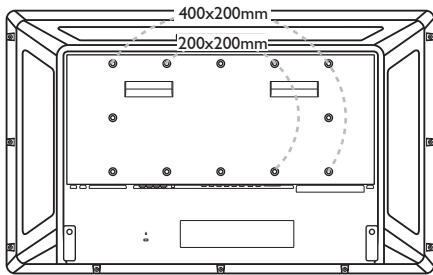


### 2.3 INSTALLATION NOTES

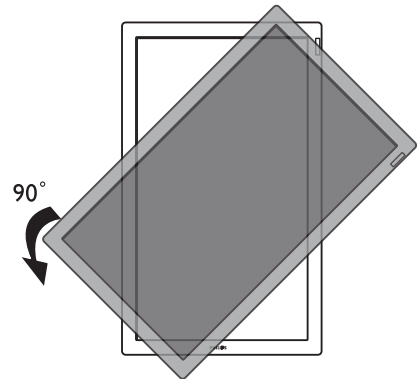
- Due to the high power consumption, always use the plug exclusively designed for this product. If an extended line is required, please consult your service agent.
- The product should be installed on a flat surface to avoid tipping. The distance between the back of the product and the wall should be maintained for proper ventilation. Avoid installing the product in the kitchen, bathroom or any other places with high humidity so as not to shorten the service life of the electronic components.
- The product can normally operate only under 2000m in height. It might abnormally function at a place over 2000m in height and do not install and operate there.

### 2.4 PORTRAIT MOUNTING

Wall mounting holes

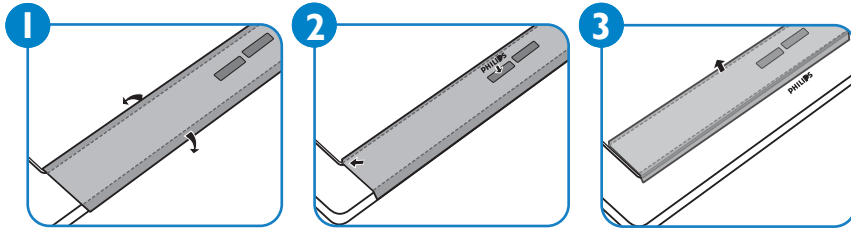


Note: Metric 6 (10mm) screws are needed for wall mounting (not included).

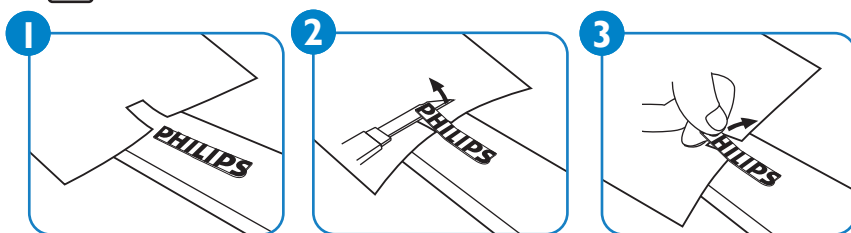


Note: The "AC In" should be on the top of connectors, when rotating your monitor.

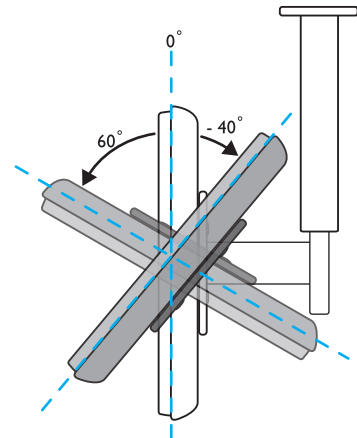
How to use the logo guider?



How to remove the logo?

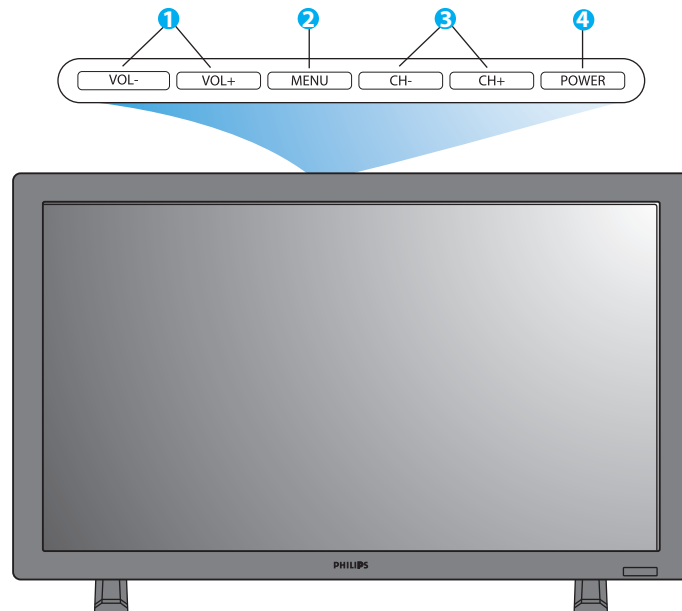


Allowable tilting angle in Portrait Mode.



Note: When installing the LCD monitor on the wall, please consult a professional technician for proper installing. The manufacturer accepts no liability for installations not performed by a professional technician.

### 3. PARTS AND FUNCTIONS



#### 3.1 FRONT VIEW

##### 1. VOL+/- button

Use these buttons to adjust the volume.

When the On Screen Menu is active, use these as **UP/DOWN** menu buttons.

##### 2. MENU button

Use this button to engage the On Screen Display menu.

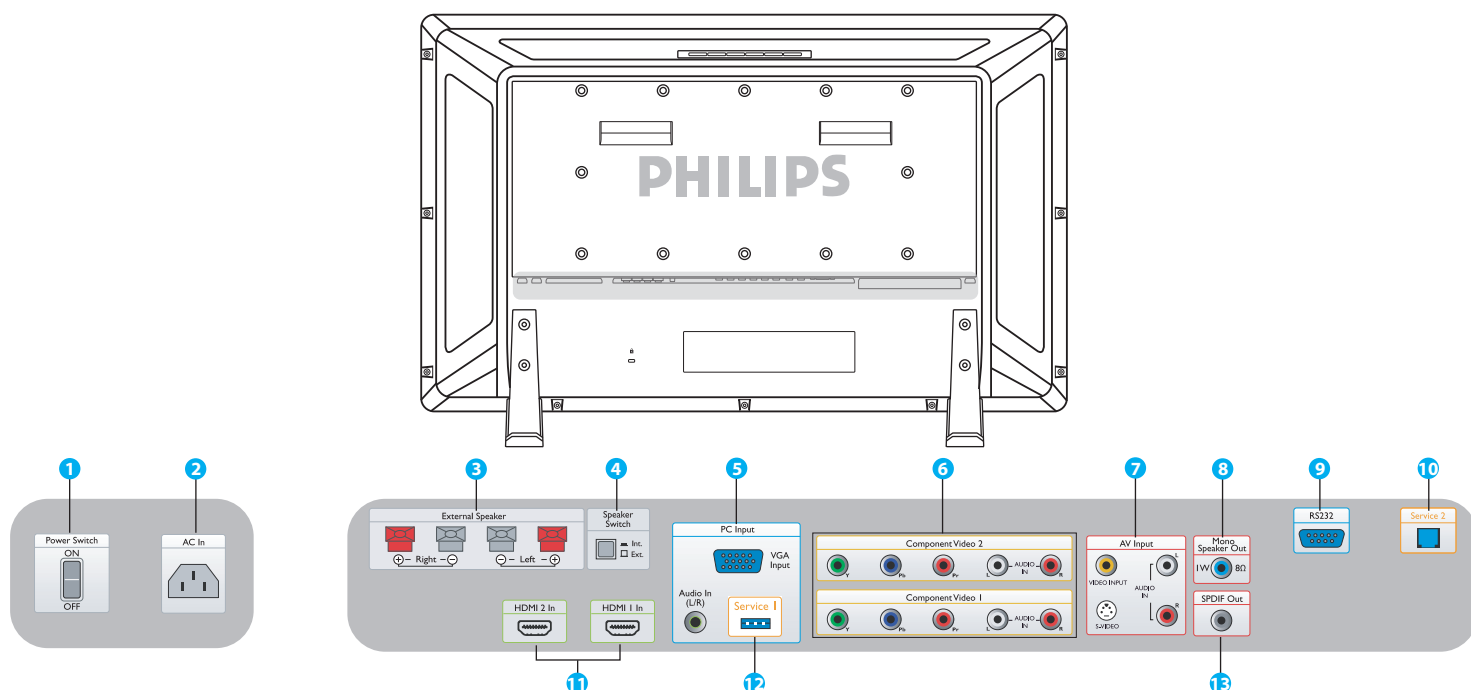
##### 3. CH+/- button

Use these buttons to select the input source.

When the On Screen Menu is active, use these as **LEFT/RIGHT** menu buttons.

##### 4. POWER button

Use this button to switch monitor on/off.



## 3.2 REAR VIEW

### 1. Power Switch

Press to switch power on/off.

### 2. AC In

Connect the supplied power cord to the wall outlet.

### 3. External Speaker

Connect to external speakers.

### 4. Speaker Switch Int./ Ext.

Press to switch speaker from internal or external.

### 5. PC Input: VGA input/ Audio input

Connect to VGA output of computer or Set-Top box.

### 6. Component Video 1/ Component Video 2

Auto-detecting component video inputs (YPbPr) for connecting to the component output jacks of a DVD player or Set-Top box.

### 7. AV Input: Video input/ S-Video/ Audio L/R input

Connect to video and audio output of an external device. Connect S-video signals from external sources such as VCRs or DVD players.

### 8. Mono Speaker Out

Connect IW/8Ω audio cable to the external speaker.

### 9. RS232

RS232 network connection input for the use of loop through function.

### 10. Service 2

Connect to a PC for updating software.

### 11. HDMI 1/HDMI 2

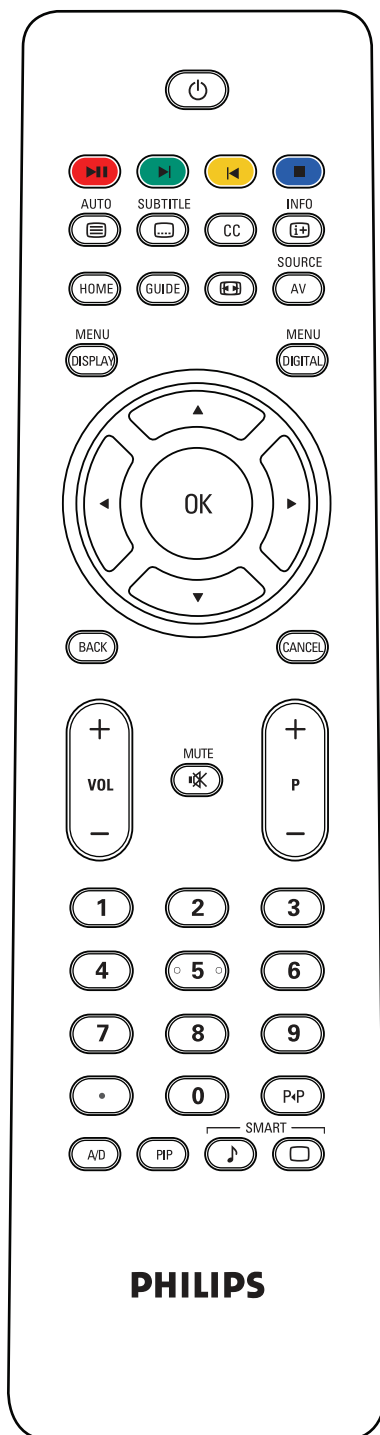
Connect to HDMI output of any AV device or connect to the DVI output of a PC. (Using DVI-HDMI cable)

### 12. Service 1

Connect to a PC for updating software.


### 13. SPDIF Out


Connect to the Hi-Fi system.





### 3.3 REMOTE CONTROL


#### 3.3.1 GENERAL FUNCTIONS


 **Standby Power button**  
Press to switch on the monitor from standby mode. Press again to turn it off to standby mode.


 **pause/play, next, previous, and stop buttons**  
Function when a media player card or possibly NetX card is in the card slot of the set.

 **Auto/Text button**  
Use to adjust the screen automatically when connected to the PC input. When a CVBS (AV/CARD AV) source is selected with teletext content, teletext can be shown by pressing this button.


 **Subtitle button**  
Press to select subtitles (in case function is supported on applicable card).


 **Closed caption button**  
Function in North America and Asia Pacific in case applicable tuner card is in the set.

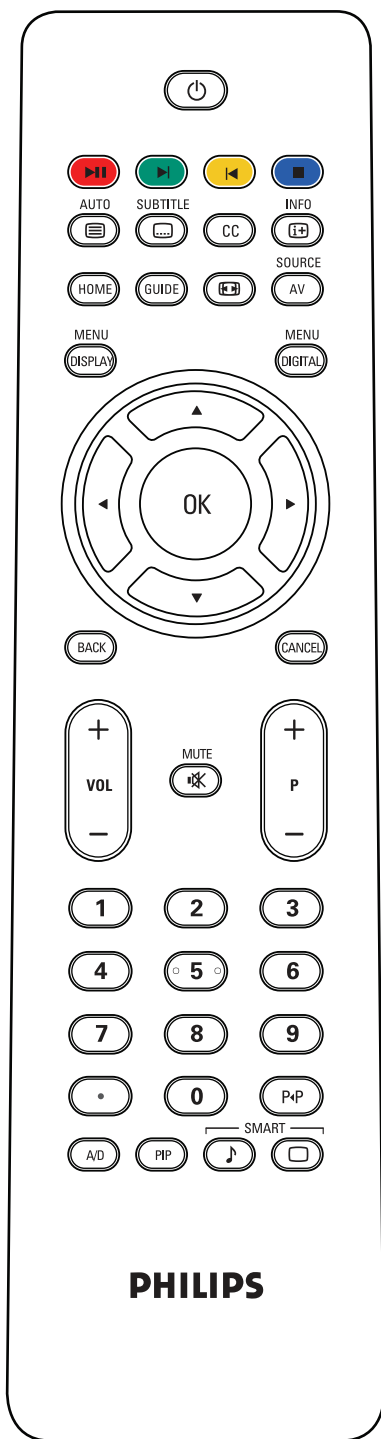
 **Information button**  
Press to see additional information of the set or inserted card in the set.

 **Home button**  
Press to go to the memory content of the available memory (USB on media player card or NetX card).

 **Guide button**  
No function.

 **Picture format button**  
Press to screen aspect ratio, switching between Widescreen, Superwide, 4:3, Zoom 14:9, Zoom 16:9, and Subtitle zoom.

 **AV source button**  
Press to select the video input source: AV, CARD AV, CVI 1, CVI 2, PC-A, HDMI 1, and HDMI 2.



**Display menu button**

Press to activate on screen display menu.



**Digital menu button**

Press to activate on screen menu of any digital card.

**OK button**

Press to confirm the chosen OSD function.



**Back/Channel button**

Either MHEG, MHP, or navigation functions on media player card or NetX card.

**VOL+/- button**

Press + or - to adjust the volume.



**Mute button**

Press to disable or enable the audio.

**P+/- button**

Press to select the input source.

**Numerical buttons**

Press to direct access to programs.



**Dot button**

Use the dot for digital channels.



**Channel return button**

Press to return or recall the channel.



**A/D button**

DVB or ATSC function to select either analogue or digital channels.



**PIP button**

Press to call up a subscreen size.



**Smart sound button**

Press to choose audio effects between Personal, Theatre, Music, or Voice.



**Smart picture button**

Press to choose picture settings between Personal, Rich, Natural, or Soft.



### 3.3.2 TELETEXT FUNCTIONS

*Note:*

The following buttons are using in Teletext mode only, which are available in Europe and some of the Asia Pacific TV systems.



#### **Auto/Teletext button**

Press to switch Teletext on/off.

When a CVBS (AV/CARD AV) source is selected with teletext content, teletext can be shown by pressing this button.

#### **Numerical buttons**

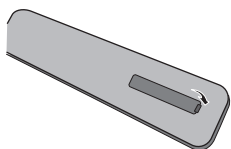
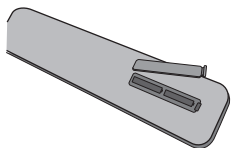
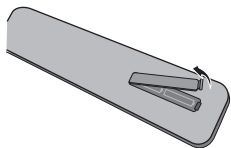
Press to enter a (3-digit) page number.

#### **◀ ▶ Cursor left/right**

Press to jump to the previous or next page.



These four color buttons allow you to access the item or the page indicated by corresponding color in teletext.



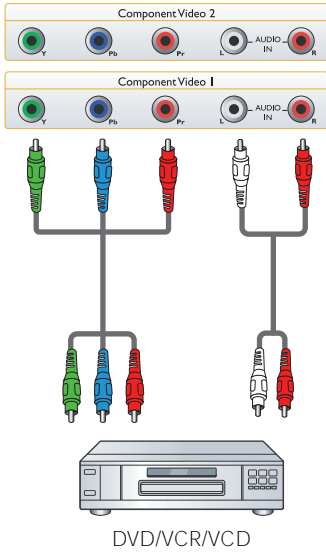
### 3.3.3 INSERTING THE BATTERIES IN THE REMOTE CONTROL

1. Remove the cover on the rear of the remote control.
2. Insert two AAA size 1.5V batteries ensuring that the “+” and “-” ends of the batteries are correctly aligned.
3. Replace the cover.

*Note:*

Do not mix battery types, e.g. alkaline and manganese.

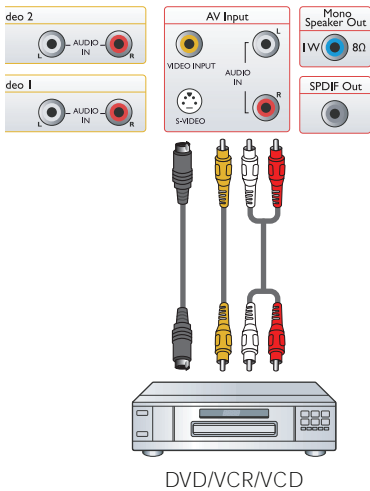
## 4. CONNECTIONS TO EXTERNAL EQUIPMENT



### 4.1 CONNECTING EXTERNAL EQUIPMENT (DVD/VCR/VCD/Hi-Fi system)

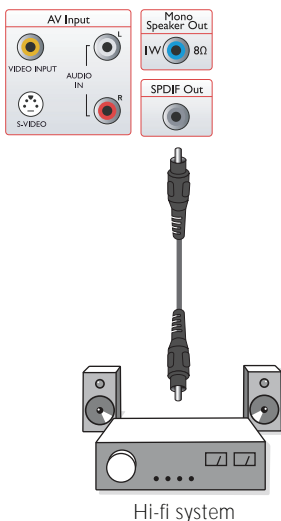
#### 4.1.1 USING COMPONENT VIDEO INPUT

1. Connect the green-colored (labeled as "Y") jack of the device to the green-colored "Y" jack of the monitor.
2. Connect the blue-colored (labeled as "Pb") jack of the device to the blue-colored "Pb" jack of the monitor.
3. Connect the red-colored (labeled as "Pr") jack of the device to the red-colored "Pr" jack of the monitor.
4. Connect the red (R) and white (L) audio jacks of the device to the audio L/R input jacks of the monitor.



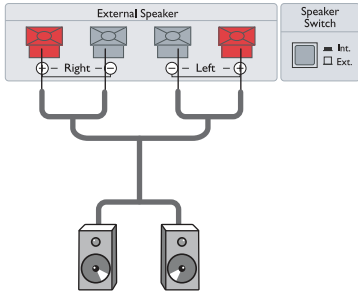
#### 4.1.2 USING AV INPUT

1. Connect S-Video connector of the external device to the S-VIDEO input of the monitor.
2. Connect the yellow video jack of the device to the video input of the monitor.
3. Connect the red (R) and white (L) audio jacks of the device to the audio L/R input jacks of the monitor.



#### 4.1.3 USING SPDIF OUT

1. Connect the SPDIF jack of the external device to the SPDIF output of the monitor.

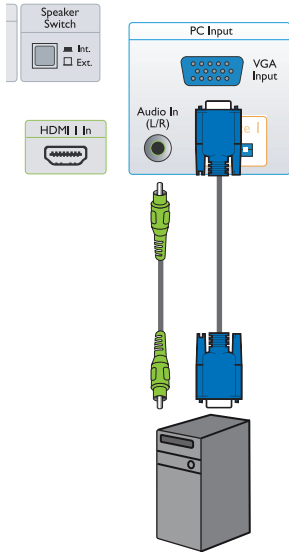


## 4.2 EXTERNAL AUDIO CONNECTION

### 4.2.1 CONNECTING EXTERNAL SPEAKER

1. Connect the speaker wires to the external speaker output of the monitor.
2. Turn on the monitor.
3. Press the speaker switch button and set it as external.

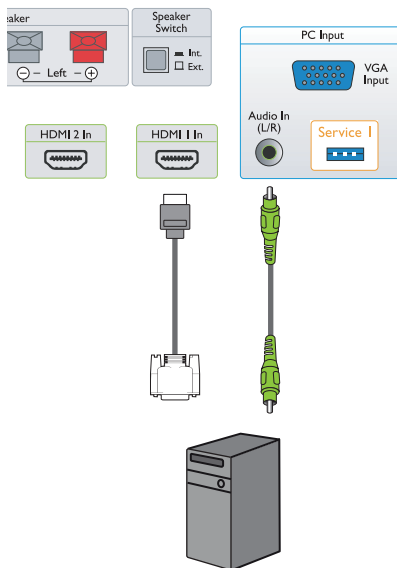
*Note: Before connecting the speaker wires to the monitor, turn off your monitor.*



## 4.3 CONNECTING A PC

### 4.3.1 USING PC INPUT

1. Connect the 15-pin VGA connector of the PC to the VGA connector of the monitor.
2. Connect the audio cable to the audio L/R input of the monitor.



### 4.3.2 USING HDMI INPUT

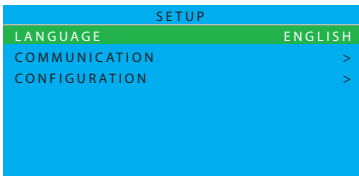
1. Connect the DVI connector of the PC to the HDMI connector of the monitor.
2. Connect the audio cable to the audio L/R input of the monitor.

## 5. OSD MENU

### 5.1 SETUP MENU

An overall view of the On-Screen Display (OSD) structure is shown below. You can use it as a reference for further adjusting your monitor.

1. Press **DISPLAY MENU** button on the remote control.
2. Press cursor **UP/DOWN** button to choose the item you want to adjust.
3. Press cursor **LEFT/RIGHT** button to toggle between sub-menu or adjust the item you selected.
4. Press **DISPLAY MENU** button on the remote control to return to sub-menu or press again to exit the menu.

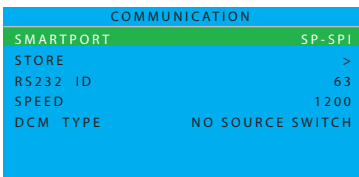


#### 5.1.1 OSD MENU LANGUAGE

Choose of languages in user interface.

Use cursor **LEFT/RIGHT** button to toggle between

- ENGLISH
- FRANCAIS
- DEUTSCH
- ITALIANO
- ESPANOL
- 中文



#### 5.1.2 OSD MENU COMMUNICATION

1. Press **DISPLAY MENU** button on the remote control.
2. Use cursor **DOWN** button to highlight **COMMUNICATION**.
3. Use cursor **RIGHT** button to enter it.
4. Press cursor **UP/DOWN** button to toggle between **SMARTPORT, STORE, RS232 ID, SPEED** or **DCM TYPE**.
5. Press **DISPLAY MENU** button on the remote control to return to sub-menu or press again to exit the menu.

#### SMARTPORT

Use cursor **LEFT/RIGHT** button to toggle between **OFF, SP-SPI**, and **SP-I2C**. For normal stand-alone applications select **OFF** under the **SMARTPORT**.

#### **Important note:**

The **COMMUNICATION** menu shows items that are relevant for system integrators that develop their own cards (also called Smart Cards or Data Communication Modules, DCM's) and for the use of Philips branded Smart Cards. These items can be relevant in case a Philips or third party Smart Card is used that requires a certain setup. The card slot of the set has several by the industry accepted serial interfaces (**SP-SPI** and **SP-I2C**) of which only one will be used at the same time. Please consult the User Manual of the applicable card for the correct **COMMUNICATION** setup.

The **RS232** function is independently available of **SP-SPI** and **SP-I2C** and is always switched "ON".

The communication **SPEED** (baud rate) can be adjusted to the required baud rate of the external control system.

COMMUNICATION	
SMARTPORT	SP-SPI
STORE	>
RS232 ID	63
SPEED	1200
DCM TYPE	NO SOURCE SWITCH

### STORE

Press to store or set the setting of communication menu.

Use cursor **RIGHT** to select

- STORED

COMMUNICATION	
SMARTPORT	SP-SPI
STORE	>
RS232 ID	63
SPEED	1200
DCM TYPE	NO SOURCE SWITCH

### RS232 ID

Press to control monitor via RS232 interface.

Use cursor **LEFT/RIGHT** to setup the monitor ID.

COMMUNICATION	
SMARTPORT	SP-SPI
STORE	>
RS232 ID	63
SPEED	1200
DCM TYPE	NO SOURCE SWITCH

### SPEED

Press to set the serialxpress connecting speed.

Use cursor **LEFT/RIGHT** to setup the valid values from 1200 to 57600.

COMMUNICATION	
SMARTPORT	SP-SPI
STORE	>
RS232 ID	63
SPEED	1200
DCM TYPE	NO SOURCE SWITCH

### DCM TYPE

This function is only for SP-SPI and SP-I2C communication.

Use cursor **LEFT/RIGHT** to toggle between

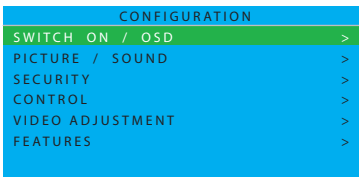
- NO SOURCE SWITCH
- GENERIC



### 5.1.3 OSD MENU CONFIGURATION

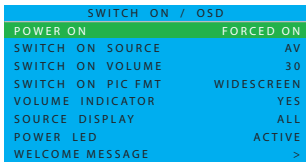
1. Press **DISPLAY MENU** button on the remote control.
2. Use cursor **DOWN** button to highlight CONFIGURATION.
3. Use cursor **RIGHT** button to enter it.
4. Press cursor **UP/DOWN** button to toggle between **SWITCH ON/OSD, PICTURE/SOUND, SECURITY, CONTROL, VIDEO ADJUSTMENT, and FEATURES.**
5. Press **DISPLAY MENU** button on the remote control to return to sub-menu or press again to exit the menu.

*Note: VIDEO ADJUSTMENT is only support in PC-A mode.*



#### SWITCH ON/OSD

In this submenu, the SWITCH ON and ON SCREEN DISPLAY settings of the monitor upon switched on can be configured.



#### POWER ON

Define the behavior of the monitor whenever AC power is applied.

Use cursor **LEFT/RIGHT** button to toggle between

- **LAST STATUS**

The monitor will be automatically switched to the last status (either STANDBY or ON) whenever the mains power is turned on or resumed after the power interruption.

- **ON**

Only available when monitor with I-board s/w version IC4XA\_1.6 or later. Similar function as FORCED ON but the remote control STANDBY button is enabled.

- **STANDBY**

The monitor will be automatically switched to STANDBY mode (even if the last status was on) whenever the mains power is turned on or resumed after the power interruption.

- **FORCED ON**

The monitor will be automatically switched to ON mode whenever the mains power is turned on or resumed after the power interruption.

*Note: The remote control STANDBY button will no longer function when the monitor is set in this mode. Monitor can only be switched off by means of the main switch or a set-up remote control or by ESP function.*

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

SWITCH ON / OSD	
POWER ON	FORCED ON
SWITCH ON SOURCE	AV
SWITCH ON VOLUME	30
SWITCH ON PIC FMT	WIDESCREEN
VOLUME INDICATOR	YES
DISPLAY SOURCE	ALL
POWER LED	ACTIVE
WELCOME MESSAGE	>

### SWITCH ON SOURCE

Set the monitor's source as switch on.

Use cursor **LEFT/RIGHT** button to toggle between

- AV
- CARD AV
- CVI 1
- CVI 2
- PC-A
- HDMI 1
- HDMI 2
- LAST STATUS

### SWITCH ON VOLUME

Set the monitor's audio at switch on.

Use numerical buttons to direct access to volume or use cursor **LEFT/RIGHT** button to adjust.

*Note: If the SWITCH ON VOLUME is 0, it can be toggled to LAST STATUS by pressing cursor **LEFT** button.*

### SWITCH ON PIC FMT

Choose the display format you prefer.

Use cursor **LEFT/RIGHT** button to toggle between

- WIDESCREEN
- SUPERWIDE
- 4:3
- ZOOM 14:9
- ZOOM 16:9
- SUBTITLE ZOOM

### VOLUME INDICATOR

Press to show (YES) or hide (NO) the volume indicator.

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

### DISPLAY SOURCE

Press to display the source.

Use cursor **LEFT/RIGHT** button to toggle between

- ALL
- NONE
- NUMBER
- LABEL

### POWER LED

Press to show (ACTIVE) or hide (NOT ACTIVE) the LED signal.

Use cursor **LEFT/RIGHT** button to toggle between

- ACTIVE
- NOT ACTIVE

*Note: In ACTIVE mode, the signal for normal operation should be blue, while that for standby mode should be amber.*

### WELCOME MESSAGE

Press cursor **RIGHT** button to display the WELCOME MESSAGE entry menu.

- DISPLAY NO/YES
- LINE 1
- LINE 2
- CLEAR

CONFIGURATION	
SWITCH ON / OSD	>
PICTURE / SOUND	>
SECURITY	>
CONTROL	>
VIDEO ADJUSTMENT	>
FEATURES	>

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

PICTURE / SOUND	
BRIGHTNESS	50
COLOUR	50
CONTRAST	50
SHARPNESS	50
PIXEL SHIFT	YES
ACTIVE CONTROL	YES
TREBLE	50
BASS	50
AVL	ON

## PICTURE/SOUND

In this submenu, the picture and sound settings of the monitor can be adjust. Use cursor **UP/DOWN** button to toggle between

### BRIGHTNESS

Adjust to brighten the dark parts of the picture. This appears to add white to the colour.

Use cursor **LEFT/RIGHT** button to adjust.

### COLOUR (Not supported in PC-A mode)

Adjust to add or reduce colour.

Use cursor **LEFT/RIGHT** button to adjust.

### CONTRAST

Adjust to sharpen the picture quality. The black portions of the picture become richer in darkness and the white become brighter.

Use cursor **LEFT/RIGHT** button to adjust.

### SHARPNESS (Not supported in PC-A mode)

Adjust to improve detail.

Use cursor **LEFT/RIGHT** button to adjust.

### PIXEL SHIFT

PIXEL SHIFT provides an "anti-burn in" feature that automatically shifts the static image on screen.

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

### ACTIVE CONTROL

ACTIVE CONTROL will continuously measures and corrects all incoming signals in sharpness, noise, contrast, and colour in order to provide the best and most consistent picture quality.

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

### TREBLE

Adjust audio setting parameters of treble.

Use cursor **LEFT/RIGHT** button to adjust.

### BASS

Adjust audio setting parameters of bass.

Use cursor **LEFT/RIGHT** button to adjust.

### AVL

Automatically reduces the volume differences between channels and programs, providing a more constant overall level. This will also reduce the dynamics of sound.

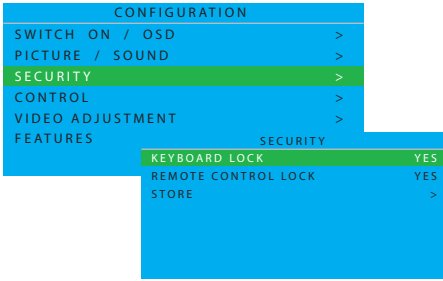
Use cursor **LEFT/RIGHT** button to toggle between

- FORCED MONO
- OFF
- ON

## SECURITY

In this submenu, the security settings of the monitor can be configured.

Use cursor **UP/DOWN** button to toggle between



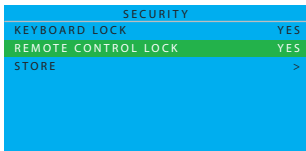
### KEYBOARD LOCK

Disable the monitor local keyboard for volume and program control.

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

*Note: When local keyboard is locked, press "MENU" button on remote control to display the **SETUP** menu and select "NO" for **KEYBOARD LOCK** function, to unlock local keyboard function. After that, select "STORED" to store this setting.*



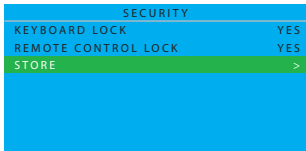
### REMOTE CONTROL LOCK

Disable all function of the remote control.

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

*Note: When remote control is locked, press "MENU" button on local keyboard (on top of the monitor) to display the **SETUP** menu and select "NO" for **REMOTE CONTROL LOCK** function, to unlock remote control function. After that, select "STORED" to store this setting.*



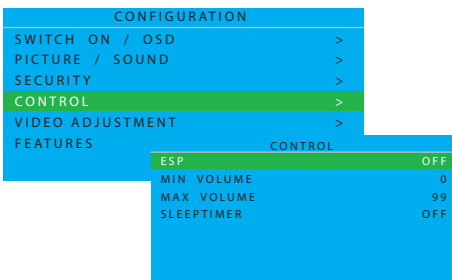
### STORE

Press to store the security menu.

Use cursor **RIGHT** button to select

- STORED

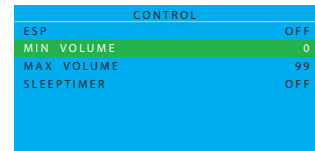
*Note: If both keyboard and remote control are locked, only **RS232** protocol can unlock them.*



## CONTROL

In this submenu, the control settings of the monitor can be configured.

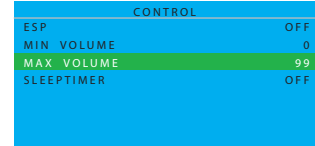
Use cursor **UP/DOWN** button to toggle between



### ESP

Energy Saving Programmability function controls the maximum continuous viewing time allowed and its valid values are 00 ~99 (in hour).

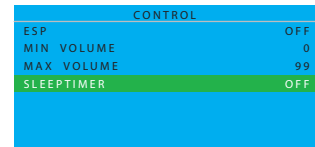
*Note: if the monitor is switched off, the ESP timer countdown will be reset.*



### MIN VOLUME

Set the minimum volume level allowed for the monitor set.

Use cursor **LEFT/RIGHT** button to adjust.



### MAX VOLUME

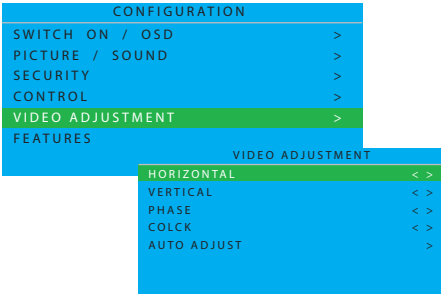
Set the maximum volume level allowed for the monitor set.

Use cursor **LEFT/RIGHT** button to adjust.

### SLEEPTIMER

Set the LCD monitor to turn itself off within an amount of time you specify. (OFF-240 minutes from the current time)

Use cursor **LEFT/RIGHT** button to adjust.



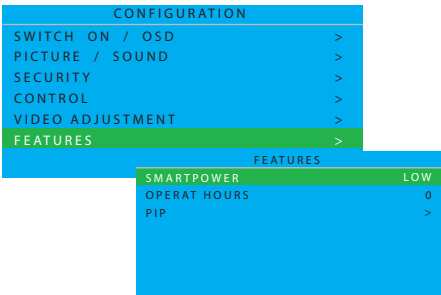
### VIDEO ADJUSTMENT (Only supported in PC-A mode)

Fine tuning display geometry and time frequency parameter.

Use cursor **UP/DOWN** button to toggle between

- HORIZONTAL - adjust the horizontal placement of the picture.
- VERTICAL - adjust the vertical placement of the picture.
- PHASE - eliminate the horizontal interfering lines.
- CLOCK - eliminate the vertical interfering lines.
- AUTO ADJUST - automatically adjust the best image position.

Use cursor **LEFT/RIGHT** to adjust



### FEATURES

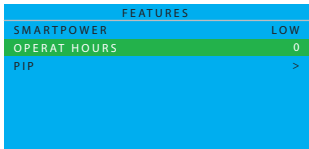
In this submenu, the features settings of the monitor can be configured.

#### SMARTPOWER

Set the monitor to reduce the power automatically.

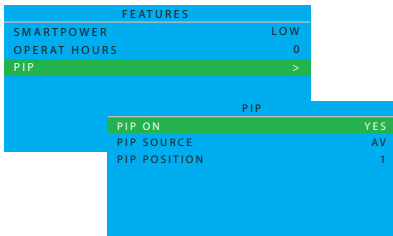
Use cursor **LEFT/RIGHT** to toggle between

- OFF
- LOW
- MEDIUM
- HIGH



#### OPERAT HOURS

OPERAT HOURS automatically counts the usage hours of the monitor.



### PIP (Only supported in PC-A mode)

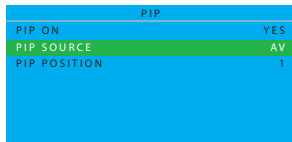
Set (Picture-in-Picture) source and location.

Use cursor **LEFT/RIGHT** to toggle between

#### PIP ON

Use cursor **LEFT/RIGHT** button to toggle between

- YES
- NO

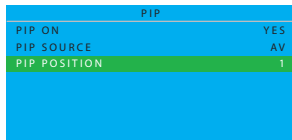


#### PIP SOURCE

Choose of video source for PIP screen.

Use cursor **LEFT/RIGHT** button to toggle between

- AV
- CARD AV

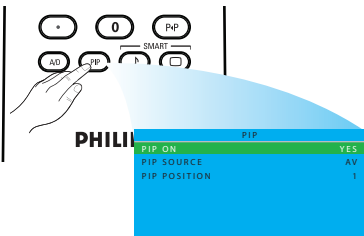



#### PIP POSITION

Select which corner of the position of PIP.

Use cursor **LEFT/RIGHT** button to toggle between

- 1
- 2
- 3
- 4

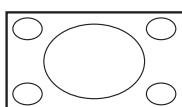


Note: You can also use  button on the remote control to call up OSD screen, then, use cursor **UP/DOWN** button to toggle between PIP ON, PIP SOURCE, and PIP POSITION.

## 5.2 PICTURE FORMAT

The pictures you receive may be transmitted in 16:9 format (widescreen) or 4:3 format (conventional screen). 16:9 pictures sometimes have a black band at the top and bottom of the screen (letterbox format). This function allows you to optimize the picture display on screen.

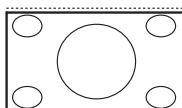
*Note: In PC-A mode, only WIDESCREEN and 4:3 formats are supported.*



WIDESCREEN

### WIDESCREEN

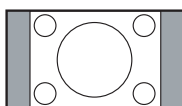
This mode restores the correct proportions of pictures transmitted in 16:9 using the full screen display.



SUPERWIDE

### SUPERWIDE

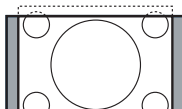
This mode is used to display 4:3 pictures using the full surface of the screen by enlarging the sides of the pictures.



4:3

### 4:3

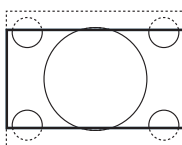
The picture is reproduced in 4:3 format and a black band is displayed on either side of the picture.



ZOOM 14:9

### ZOOM 14:9

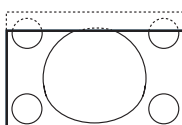
The picture is enlarged to 14:9 format, a thin black band remains on both sides of the picture.



ZOOM 16:9

### ZOOM 16:9

The picture is enlarged to 16:9 format. This mode is recommended when displaying pictures that have black bands at the top and bottom (letterbox format).



SUBTITLE ZOOM

### SUBTITLE ZOOM

This mode is used to display 4:3 pictures using the full surface of the screen leaving the subtitles visible.

## 6. INPUT MODE

### VGA Resolution

Standard Resolution	Active Resolution		Refresh Rate	Pixel Rate	Aspect Ratio	Stand for Mode
	H Pixels	V Lines				
VGA	640	480	60 Hz	25.175 MHz	4:3	Video Graphic Array
			72 Hz	31.5 MHz		
			75 Hz	31.5 MHz		
WVGA	848	480	60 Hz	33.75 MHz	16:9	Wide Video Graphic Array
SVGA	800	600	60 Hz	40 MHz	4:3	Super VGA
			72 Hz	50 MHz		
			75 Hz	49.5 MHz		
XGA	1024	768	60 Hz	65 MHz	4:3	Super VGA Extended Graphic Array
			70 Hz	75 MHz		
			75 Hz	78.5 MHz		
WXGA	1360	768	60 Hz	84.75 MHz	16:9	Wide XGA

### SDTV Resolution

Standard Resolution	Active Resolution		Refresh Rate	Pixel Rate	Aspect Ratio	Stand for Mode
	H Pixels	V Lines				
480i	720	480	29.97 Hz	13.5 MHz	4:3	Modified NTSC Standard
480p			59.94 Hz	27 MHz		
576i	720	576	25 Hz	13.5 MHz	4:3	Modified PAL Standard
576p			50 Hz	27 MHz		

### HDTV Resolution

Standard Resolution	Active Resolution		Refresh Rate	Pixel Rate	Aspect Ratio	Stand for Mode
	H Pixels	V Lines				
720p	1280	720	50 Hz	74.25 MHz	16:9	Normally DVB Mode
			60 Hz			
1080i	1920	1080	25 Hz	74.25 MHz	16:9	Normally ATSC Mode
			30 Hz			

- The PC text quality is optimum in WXGA mode (1360 x 768, 60Hz).
- When this LCD is used as a PC display, 24-bit color is supported (over 16.7 million colors).
- Your PC display screen might appear different depending on the manufacture (and your particular version of Windows). Check your PC instruction book for information about connecting your PC to a display.
- If a vertical and horizontal frequency-select mode exists, select 60Hz (vertical) and 31.5KHz (horizontal). In some cases, abnormal signals (such as stripes) might appear on the screen when the PC power is turned off (or if the PC is disconnected). If so, press the INPUT button to enter the video mode. Also, make sure that the PC is connected.
- When horizontal synchronous signals seem irregular in RGB mode, check PC power saving mode or cable connections.
- The display settings table complies to the IBM/VESA standards, and based on the analog input.
- The DVI support mode is regarded as same to the PC support mode.
- The best timing for the vertical frequency to each mode is 60Hz.



## 7. TECHNICALS SPECIFICATIONS

### Display

Item	Specifications	
	32" LCD	42" LCD
Screen Size (Active Area)	31.51" (697.685 (H) x 392.256 (V) [mm])	42.02" (930.25 (H) x 523.01 (V) [mm])
Aspect ratio	16:9	16:9
Number of pixels	1366 (H) x 768 (V)	1366 (H) x 768 (V)
Pixel pitch	0.170 (H) x 0.170 (V) [mm]	0.227 (H) x 0.277 (V) [mm]
Displayable colors	16.7 M colors	16.7 M colors
Brightness	500 cd/m <sup>2</sup>	500 cd/m <sup>2</sup>
Dynamic contrast ratio	3000:1	3000:1
Viewing angle	178 degrees	178 degrees

### In/ Out Terminals

Item		Specification
Speaker Output	Internal Speaker	10W (L) + 10W (R) [RMS]/8Ω 1 Way 1 Speaker System 82 dB/W/M/160 Hz ~ 13 KHz
RS-232	D-Sub Jack x 1 (9 pin)	TXD + RXD (1:1)
HDMI Input	HDMI Jack x 2 (Type A)	Digital RGB: TMDS (Video + Audio) MAX: Video - 720p, 1080i, 1280 x 1024/60 Hz (SXGA) Audio - 48 KHz/ 2 Channel (L+R)
RGB Input	D-Sub Jack x 1 (15 pin)	Analog RGB: 0.7V [p-p] (75Ω), H/CS/V: TTL (2.2kΩ), SOG: 1V [p-p] (75Ω) MAX: 720p, 1080i, 1280 x 1024/60 Hz (SXGA)
	RCA Jack x 1	Audio: 0.5V [rms] (Normal)/2 Channel (L+R)
Component Input	RCA Jack x 2	Y: 1V [p-p] (75Ω), Pb: 0.7V [p-p] (75Ω), Pr: 0.7V [p-p] (75Ω) MAX: 480i, 576i, 480p, 576p, 720p, 1080i Audio: 0.5V [rms] (Normal)/ 2 Channel (L+R)
Digital Audio Output	Optical Jack x 1	3V [p-p] (75Ω) 48KHz Sampling (4 Hz ~ 22 KHz)
S-Video Input	Mini DIN Jack x 1 (4 pin)	Y: 1V [p-p] (75Ω), C: 0.286V [p-p] (75Ω) [NTSC] Y: 1V [p-p] (75Ω), C: 0.300V [p-p] (75Ω) [PAL/SECAM]
Video Input	RCA Jack x 1	Video: 1V [p-p] (75Ω) [NTSC/PAL/SECAM] Audio: 0.5V [rms] (Normal)/ 2Channel (L+R)

**General**

Item	Specifications	
	32" LCD	42" LCD
Power Supply	AC 100V ~ 240V, 50/60 Hz	
Power Consumption (Max)	115W	190W
Dimension [W x H x D mm]		
With Stand	792.5 x 531.5 x 205 mm	1021.8 x 662.8 x 250 mm
Without Stand	792.5 x 487.0 x 115 mm	1021.8 x 615.5 x 129 mm
Weight		
With Stand	13.21 Kg	21.8 Kg
Without Stand	12.67 Kg	21 Kg

**Environment Condition**

Item		Specification	
		32" LCD	42" LCD
Temperature	Operational	0 ~ 40°C	
	Storage	-20 ~ 60°C	
Humidity	Operational	20 ~ 80% RH (No condensation)	
	Storage	5 ~ 95% RH (No condensation)	
Pressure	Operational	800 ~ 1100 hPa (Altitude: 0 ~ 2,000 m)	
	Storage / Shipment	700 ~ 1100 hPa (Altitude: 0 ~ 3,000 m)	

**Internal Speaker**

Item	Specification	
	32" LCD	42" LCD
Type	1 Way 1 Speaker	
Input	10 W (RMS)	
Impedance	8Ω	
Output Sound Pressure	82 dB/W/M	
Frequency Response	160 Hz ~ 13 KHz	

## 8. CLEANING AND TROUBLESHOOTING

### 8.1 CLEANING

#### **Cautions When Using the Display**

- Do not bring your hands, face or objects close to the ventilation holes of the display. Top of display is usually very hot due to the high temperature of exhaust air being released through the ventilation holes. Burns or personal injuries may occur if any body parts are brought too close. Placing any object near the top of the display could also result in heat related damages to the object as well as the display itself.
- Be sure to disconnect all cables before moving the display. Moving the display with its cables attached may damage the cables and thus case fire or electric shock danger.
- Disconnect the power plug from the wall outlet as a safety precaution before carrying out any type of cleaning or maintenance procedure.

#### **Front Panel Cleaning Instructions**

- The front of the display has been specially treated. Wipe the surface gently using only a cleaning cloth or a soft, lint-free cloth.
- If the surface is particular dirty, soak a soft, lint-free cloth in a mild detergent solution. Wring the cloth to remove excess liquid. Wipe the surface of the display to remove dirt. Then use a dry cloth of the same type to dry.
- Do not scratch or hit the surface of the panel with fingers or hard objects of any kind.
- Do not use volatile substances such as insert sprays, solvents and thinners.

#### **Cabinet Cleaning Instructions**

- If the cabinet becomes dirty, wipe the cabinet with a soft, dry cloth.
- If the cabinet is extremely dirty, soak a lint-free cloth in a mild detergent solution. Wring the cloth to remove as much moisture as possible. Wipe the cabinet. Use another dry cloth to wipe over until the surface is dry.
- Do not allow any water or detergent to come into contact with the surface of the display. If water or moisture gets inside the unit, operating problems, electrical and shock hazards may result.
- Do not scratch or hit the cabinet with fingers or hard objects of any kind.
- Do not use volatile substances such as insert sprays, solvents and thinners on the cabinet.
- Do not place anything made from rubber or PVC near the cabinet for any extended periods of time.

## 8.2 TROUBLESHOOTING

Symptom	Possible Cause	Remedy
No picture is displayed	<ol style="list-style-type: none"> <li>1. The power cord is disconnected.</li> <li>2. The main power switch on the back of the monitor is not switched on.</li> <li>3. The selected input has no connection.</li> <li>4. The monitor is in standby mode in VGA mode.</li> </ol>	<ol style="list-style-type: none"> <li>1. Plug in the power cord.</li> <li>2. Make sure the power switch is switched on.</li> <li>3. Connect a signal connection to the monitor.</li> </ol>
Interference displayed on the monitor or audible noise is heard	Caused by surrounding electrical appliances, cars/motor cycles or fluorescent lights.	Move the monitor to another location to see if the interference is reduced.
Color is abnormal	The signal cable is not connected properly.	Make sure that the signal cable is attached firmly to the back of the monitor.
Picture is distorted with abnormal patterns	<ol style="list-style-type: none"> <li>1. The signal cable is not connected properly.</li> <li>2. The input signal is beyond the capabilities of the monitor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure that the signal cable is attached firmly.</li> <li>2. Check the video signal source to see if it is beyond the range of the monitor. Please verify its specifications with this monitor's specification section.</li> </ol>
Display image doesn't fill up the full size of the screen	If under AV, CARD AV, or Component with 480i input, the 4:3 wide mode is switched on.	Select VIDEO ADJUSTMENT function in SETUP menu to fine tune display geometry and time frequency parameter.
Can hear sound, but no picture	Improperly connected source signal cable.	Make sure that both video inputs and sound inputs are correctly connected.
Can see picture but no sound is heard	<ol style="list-style-type: none"> <li>1. Improperly connected source signal cable.</li> <li>2. Volume is turned all the way down.</li> <li>3. MUTE is turned on.</li> <li>4. No external speaker connected, and speaker switch Int./Ext. is on the Ext. position (Full position).</li> </ol>	<ol style="list-style-type: none"> <li>1. Make sure that both video inputs and sound inputs are correctly connected.</li> <li>2. Use VOL +/- button to hear sound.</li> <li>3. Switch MUTE off by using the MUTE button.</li> <li>4. Press speaker switch Int./Ext. to the right position (Half position for Int.).</li> </ol>
Some picture elements do not light up	Some pixels of the display may not turn on.	This monitor is manufactured using an extremely high level of precision technology: however, sometimes some pixels of the monitor may not display. This is not a malfunction. Please see the enclosed warranty card for more information.
After-Images can still be seen on the monitor after the monitor is powered off. (Examples of still pictures include logos, video games, computer images, and images displayed in 4:3 normal mode)	A still picture is displayed for an over extended period of time.	Do not allow a still image to be displayed for an extended period of time as this can cause a permanent after-image to remain on the monitor.